

ALPHABETICAL LIST OF LICHENS COLLECTED IN SEVERAL COUNTIES OF NORTHERN OHIO.

EDO CLAASSEN.

Very little attention appears to have been given to the collection of Lichens in Ohio since E. E. Bogue published his list of Ohio Lichens. The cause of this may be to some extent in a lack of the necessary assistance in their determination. Since the appearance of Tuckerman's work, the most important is, no doubt, Fink's "The Lichens of Minnesota." As nearly all Lichens of Northern Ohio are apparently treated in this work it is of great value to all students desiring to determine the Lichens of the northern counties. Together with Tuckerman's "Synopsis," Sydow's "Die Flechten Deutschlands," Boistel's "Les Lichens de la France," Hepp's "Abbildungen der Flechtensporen," and several other works, it was of great use to the writer in his determinations.

The names of the counties, where each lichen was collected, are abbreviated in the list: C stands for Cuyahoga, E for Erie, G for Geauga, L for Lake, M for Medina, O for Ottawa, P for Portage, S for Summit, and St for Stark. The numbers following the abbreviations indicate the number of places where each species was found. Most of the Lichens were noted to occur in Cuyahoga county, where the writer's residence is located. As much as possible of the mode of occurrence was noted, namely, on bark, on rock, etc. Notwithstanding careful investigation in the course of about 10 years, several Lichens were found in but one or two localities; they are considered to be rare or hard to detect on account of their small size. The following ones may be named here:

Acarospora fuscata (Schr.) Th. Fr.	Conotrema urceolatum (Ach.) Tuck.
Arthopyrenia conoidea (Fr.) Fink.	Lecanora muralis (Schreb.) Tuck.
Bacidia umbrina (Ach.) Branth.	Lecidea uliginosa (Schr.) Ach.
& Rostk.	Parmelia conspersa (Ehrh.) Ach.
Bilimbia naegelii (Hepp) Zwackh.	Rhizocarpon alboatrum saxicolum
Bilimbia sphaeroides (Dicks.) Koerb	(Fr.) Fink.
Cetraria islandica (L.) Ach.	Sphinctrina tubaeformis Mass.
(This lichen has disappeared from	Stereocaulon coralloides Fr.
its locality, without having	Teloschistes chrysophthalmus (L.)
been found somewhere else.)	Fr.
Cladonia coccifera (L.) Willd.	

More species undoubtedly occur in these counties and by diligent work all may be found sooner or later. Specimens of those listed above and from all the localities are deposited in the writer's

herbarium. It is to be hoped, that this list may be helpful to students of lichenology in this state and induce other botanical workers to commence the study of this very interesting branch of natural science.

List of Lichens:

- Acarospora puscata* (Schrad.) Th. Fr. On sandstone: C 2 G 1.
Alectoria jubata chalybeiformis (L.) Ach. On fencerails: C 4 G 2
 P 4 S 1; on rock: L 1.
Arthonia punctiformis Ach. On bark (Ash, hickory, ptelea):
 C 2 E 1.
Arthonia radiata (Pers.) Ach. On bark (Alder, ash, basswood,
 hickory, maple, sycamore): C 16 L 3 O 1.
A. radiata swartziana (Ach.) Willey. On bark: C 1 E 1.
Arthopyrenia conoidea (Fr.) Fink. On limestone: O 1.
Arthopyrenia gemmata (Ach.) Mass. On bark (Dogwood,
 sycamore): C 4 S 1.
Arthopyrenia punctiformis (Pers.) Mass. On bark (Ash, maple):
 C 8.
Arthothelium spectabile Mass. On bark (Ash, birch, horse-
 chestnut, maple): C 43 L 1 O 1 S 3.
Bacidia fuscorubella (Hoffm.) Arn. On bark (Dogwood, elm,
 maple): C 8 L 1 S 1.
B. fuscorubella suffusa (Fr.) Fink. On limestone: O 1.
Bacidia rubella (Hoffm.) Mass. On bark (Ash, elm, maple,
 willow): C 12.
Bacidia Schweinitzii (Tuck.) Fink. On bark (Ash, birch, maple):
 C 16 G 2 L 1 M 1.
Bacidia umbrina (Ach.) Branth. & Rostk. On argillaceous slate
 and sandstone: C 4.
Baeomyces byssoides (L.) Ach. On clayey ground: C 2.
Bilimbia hypnophila (Ach.) Fr. On bark (Hickory, sycamore,
 willow) and moss covered rock: C 18 G 2 O 2 P 2 S 2.
Bilimbia naegelii (Hepp) Zwackh. On bark (Basswood): C 1.
Bilimbia sphaeroides (Dicks.) Koerb. On old bark (Witch-
 hazel): C 1.
Buellia parasema (Ach.) Koerb. On bark (Alder, ash, beech,
 chestnut, hickory, maple, oak, w. cherry): C 11 E 1 G 1
 L 1 P 2 S 3.
Calicium parietinum Ach. On bark (Sycamore): C 3.
Cetraria ciliaris Ach. On fence rails and dead Tamarack branches:
 C 2 G 2 L 1 P 3 S 2.
Cetraria islandica (L.) Ach. On earth: C 1.
Cetraria lacunosa Ach. On fence rails and old wood: C 2 P 1 S 4.
Cladonia bacillaris (Del.) Nyl. On rotten wood: C 1.
Cladonia caespiticia (Pers.) Floerke. On old wood: C 4 L 1 M 1.
Cladonia coccifera (L.) Willd. Over moss on earth: C 1.

- Cladonia cristatella* Tuck. On earth, old wood and over moss on rock: C 30 E 1 L 1 S 2.
- Cladonia fimbriata* (L.) Fr. In its varieties: *cornutoradiata* Coem., *simplex* (Weiss) Wainio, *subulata* (L) Wainio. On decaying wood: C 3.
- Cladonia furcata* (Huds.) Schrad. On earth, old bark and old wood: C 20 L 1 S 1.
- Cladonia gracilis* (L.) Willd. On old bark and wood: C 5 E 1 S 1 St 1
- Cladonia mitrula* Tuck. On earth, old bark and wood: C 19 G 1 S 2
- Cladonia pyxidata* (L.) Hoffm. On earth, old bark, old wood and over moss on the ground: C 32 E 1 S 3.
- Cladonia rangiferina* (L.) Hoffm. On earth, rock and old wood: C 7 E 1 L 3.
- Cladonia silvatica* (L.) Hoffm. On earth: C 3 E 1.
- Cladonia squamosa* (Scop.) Hoffm. On rock, old bark and wood: C 9 L 2 S 1.
- Cladonia subcariosa* (Nyl.) Wainio. On earth: C 4.
- Cladonia verticillata* Hoffm. On earth, old bark and wood: C 32 L 2 S 1.
- Coniocybe pallida* (Pers.) Fr. On moss and old bark: C 2.
- Conotrema urceolatum* (Ach.) Tuck. On bark (Chestnut): L 1.
- Dermatocarpon miniatum* (L.) Fr. On limestone: O 3; on sandstone: S 1.
- Evernia prunastri* (L.) Ach. On fence rails: C 1 G 1.
- Graphis scripta* L. On bark (Alder, ash, beech, chestnut, elm, hickory, ironwood, sycamore, whitewood): C 36 G 3 L 2 O 1.
- G. scripta recta* Nyl. On bark (Birch): C 3.
- Gyalecta cupularis* (Hdw.) Schaer. On limestone: O 3.
- Lecanora hageni* Ach. On bark (Dogwood): S 1.
- Lecanora muralis* (Schreb.) Schaer. On sandstone: C 1.
- Lecanora pallida* (Schreb.) Schaer. On bark (Ash, hickory, maple): C 18 E 2 G 4 L 2 P 1 S 2.
- Lecanora pallescens* (L.) Schaer. On old bark and bark (Beech, maple, oak): C 3 G 1.
- Lecanora subfusca* (L.) Ach. On bark (Alder, ash, beech, birch, hickory, ironwood, maple, w. cherry, willow): on fence rail; on rock (Amphibolite), limestone and sandstone: C 38 E 4 G 2 L 3 O 5 P 2 S 6.
- L. subfusca allophana* Ach. On bark (Beech, birch, hickory, whitewood): C 3 E 1.
- Lecanora varia* (Hoffm.) Ach. On bark (Alder, beech, cherry, hemlock, hickory, sycamore, tamarack, wild cherry, willow) and dead wood: C 4 E 1 G 6 O 1 P 5 S 2.
- Lecidea albocoerulescens* (Wulf.) Schaer. On sandstone: C 10 G 2 L 1 S 1.
- Lecidea coarctata* (G. E. Smith) Nyl. On argillaceous slate and sandstone: C 4.

- Lecidea contigua* Fr. On sandstone: C 2.
Lecidea cyrtidia Tuck. On sandstone: C 6 S 1.
Lecidea enteroleuca Ach. On bark (Alder, ash, hickory, willow) and on rock: C 3 G 1 O 2 S 1.
Lecidea platycarpa Ach. On argillaceous slate and sandstone: C 28 S 1.
Lecidea speirea Ach. On sandstone: C 4 S 1.
Lecidea uliginosa (Schrad.) Ach. On earth: C 2.
Lecidea vernalis (L.) Ach. On decayed wood: C 1.
Lecidea viridescens (Schrad.) Ach. On decayed roots and over moss: L 1 S 1.
Leptogium lacerum (Retz.) S. F. Gray. On old bark and over moss on rock: C 2 O 2.
Leptogium pulchellum (Ach.) Nyl. On old bark and moss: C 4 M 1.
Leptogium tremelloides (L.) S. F. Gray. On moss over old bark and limestone and on boulder: C 6 O 1 S 1.
Mycoporum sparsellum Nyl. On bark (Ironwood): S 1.
Nephroma laevigatum Ach. On old bark: C 2.
Omphalaria pulvinata (Schaer.) Nyl. On limestone: O 1.
Opegrapha varia Pers. incl. var. *notha*, (Ach.) Nyl and *pulicaris*, (Ach.) Nyl. On bark (Basswood, chestnut, elm, maple, sycamore, willow): C 14 G 1 L 1 O 2.
Opegrapha viridis Ach. On bark (Elm, oak): C 3 O 1 S 1.
Opegrapha vulgata Ach. On bark (Ash, maple, sycamore): C 4.
Pannaria nigra (Huds.) Nyl. On limestone: C 1 O 3.
Parmelia borreri rudecta (Ach.) Tuck. On bark (Hickory, maple, oak, red cedar) and old bark: C 6 E 9 O 3 P 1 St 1.
Parmelia caperata (L.) Ach. On bark (Beech, hickory, oak, sycamore, willow); over moss; on fence rails and on rocks: C 16 G 1 L 1 M 2 O 1 P 4 St 1.
Parmelia conspersa (Ehrh.) Ach. On sandstone: C 1.
Parmelia olivacea (L.) Ach. On bark (Birch, oak, willow): C 1 E 3.
Parmelia perforata (L.) Ach. On bark (Maple, oak): C 1 M 1.
Parmelia perlata (L.) Ach. On bark (Maple); on rock: C 4 E 1 G 1 M 1.
P. perlata ciliata (Lam. & DC.) Schaer. On bark (Hickory, maple): C 6 G 1 O 2.
Parmelia physodes (L.) Ach. On bark (Ash, willow); on fence rails and dead tamarack branches: C 2 G 1 P 3.
Parmelia saxatilis (L.) Ach. On bark (Hickory, maple, willow); on old bark, on rock and moss over rock: C 12 G 1 L 1 M 2 O 1 P 2.
Parmelia tiliacea (Hoffm.) Ach. On bark (Alder, ash, hickory, maple, willow): C 9 G 3 L 1 M 3 P 4 S 2.
Peltigera aphthosa (L.) Willd. On rock and over moss on rock: C 5 L 1 S 1.

- Peltigera canina* (L.) Hoffm. On earth, rock and bark: C 12 G 1 P 1.
- P. canina spuria* (Ach.) Tuck. With moss on old wood and bark and on earth: C 3 E 1.
- Peltigera horizontalis* (L.) Hoffm. Over moss and decayed leaves; on earth and on rock: C 6 L 1.
- Peltigera polydactyla* (Neck.) Hoffm. Over moss on earth and rock: C 3.
- Pertusaria communis* Lam. & DC. On bark (Ash, beech, birch, hickory, maple) and on rock: C 26 G 2 L 4 M 1 O 1 S 2.
- Pertusaria leioplaca* (Ach.) Schaer. On bark (Maple): C 3 E 1 L 1.
- Pertusaria multipuncta* (Turn.) Nyl. On bark (Hickory): C 2 E 1 O 2.
- Pertusaria pustulata* (Ach.) Nyl. On bark (Alder, apple, ash, birch, chestnut, hickory, ironwood, oak, thorn, wild cherry): C 16 G 2 L 7 O 2 S 3.
- Pertusaria velata* (Turn.) Nyl. On bark (Ash, hickory, maple): C 12 G 3 S 3.
- Physcia adglutinata* (Floerke) Nyl. On bark (Basswood, hickory, maple, oak, willow): C 8 E 1 O 2.
- Physcia aquila detonsa* (Fr.) Tuck. On bark (Beech, birch,): on old bark and moss over old bark: C 18 E 2 L 1 M 3 S 2.
- Physcia hypoleuca* (Ach.) Tuck. On bark (Maple, willow) and on old bark: C 11 E 2 M 3.
- Physcia obscura* (Schaer.) Nyl. On bark (Ash, basswood, elm, hickory, maple, poplar, willow); on rock and over moss on bark and rock: C 12 E 2 O 2 St 1.
- P. obscura endochrysea* (Hampe) Nyl. On bark (Willow): C 1.
- Physcia speciosa* (Wulf.) Nyl. On bark (Elm, poplar); on fence rail; on boulder; on moss over old bark and rock: C 8 E 2 G 1 M 2 O 2 St 1.
- Physcia stellaris* (L.) Nyl. On bark (Apple, ash, elm, maple, oak, poplar, red cedar, willow) and on rock: C 40 E 15 G 4 M 1 O 6 P 3 S 2 St 1.
- Physcia tribacia* (Ach.) Nyl. On bark (Apple, crab-apple, hickory, maple, sycamore, thorn, wild cherry, willow): C 9 E 4 G 1 O 2.
- Placidium aurantiacum* (Lightf.) Hepp. On limestone, on sandstone and on dead bark: C 6 E 1 O 2.
- Placidium cerinum* (Hoffm.) Hepp. On bark (Ash, hickory, maple, oak, willow): C 5 E 1 M 1 O 2.
- Placidium vitellinum* (Hoffm.) Hepp. On sandstone: C 2 G 1.
- Pyrenula cinerella* (Flot.) Fink. On bark (Birch, hemlock, oak, wild cherry): C 7 L 3 O 2 S 1.
- Pyrenula leucoplaca* (Wallr.) Koerb. incl. var. *pluriloculata*, Fink. On bark (Beech, birch, maple, oak, wild cherry): C 6 L 2.

- Pyrenhula nitida* (Weig.) Ach. On bark (Ash, beech, birch, ironwood, oak, poplar): C 23 S 1.
- Ramalina calicaris* (L.) Fr. On bark (Alder, ash, hickory, oak, willow) and on dead wood: C 4 G 3 M 3 O 1 P 3
- R. calicaris farinacea* (L.) Fr. On sandstone: C 1 L 1.
- R. calicaris fraxinea* (L.) Fr. On bark (Oak): C 2 E 1.
- Rhizocarpon alboatrum saxicolum* (Fr.) Fink. On limestone: O 1.
- Rhizocarpon petraeum* (Wulf.) Koerb. On sandstone: C 5.
- Rinodina sexigua* Ach. On bark (Apple): C 1.
- Rinodina sophodes* (Ach.) Koerb. On bark (Ash, hickory, ptelea); on limestone and sandstone: C 3 E 3 G 1.
- Sphinctrina tubaeformis* Mass. On thallus of *Pertusaria pustulata* (Ach.) Nyl. occurring on hickory bark: O 1.
- Stereocaulon coralloides* Fr. On sandstone: C 2.
- Sticta amplissima* (Scop.) Mass. On bark (Beech, maple, oak, sycamore) and over moss on old bark and rock: C 17 G 1 P 1.
- Sticta pulmonaria* (L.) Schaer. Over moss on bark (Ash) and on old bark (Sycamore): C 2 M 1 O 1.
- Synechoblastus nigrescens* (Huds.) Stitzenb. On bark (Maple) and on old bark: C 3.
- Teloschistes chrysophthalmus* (L.) Fr. On bark (Oak) and dead branches (Red cedar): E 1.
- Teloschistes concolor* (Dicks.) Tuck. On bark (Apple, hickory, maple, oak, poplar, red cedar, willow): C 7 E 2 O 3 P 3.
- Teloschistes lychnus* (Ach.) Fr. [incl. var. *polycarpus*, (Hoffm.), Tuck.] On bark (Apple, oak, poplar, willow): C 4 E 6 M 1.
- Trypethelium virens* Tuck. On bark (Beech, ironwood): C 6 L 1 S 1.
- Usnea barbata* Fr. On bark (Alder): P 1.
- U. barbata hirta* (L.) Fr. On bark, on dead branches (Red cedar) and on rock: C 3 G 1 L 2 M 1 P 3 S 1.
- Verrucaria fuscilla* (Turn.) Ach. On sandstone: C 1.
- Verrucaria muralis* Pers. On limestone and sandstone: C 3 O 4.
- Verrucaria nigrescens* Pers. On sandstone: C 1.
- V. nigrescens viridula* (Schr.) Nyl. On argillaceous rock: C 1.